



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,193	11/19/2001	Manuel Barbosa	11017-0003	8121

22902 7590 02/14/2006

CLARK & BRODY
1090 VERMONT AVENUE, NW
SUITE 250
WASHINGTON, DC 20005

EXAMINER

NGUYEN, XUAN LAN T

ART UNIT	PAPER NUMBER
----------	--------------

3683

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,193

Applicant(s)

BARBOSA, MANUEL

Examiner

Lan Nguyen

Art Unit

3683

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4,6,7 and 15-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,6,7 and 15-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 4 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaneshiro et al.

Re: claim 4, Kaneshiro et al. show a backing plate for a drum brake assembly, as in the present invention, comprising: an abutment plate 5, 6 comprising a first part 6 configured to be attached to an axle housing of a vehicle and a second part 5 extending from said first part 6 and configured to receive braking forces applied thereto by brake shoes 7a, 7b during braking and transmit said braking forces to said axle housing through said first part, and a shielding plate 2 extending radially beyond said abutment plate and configured to shield brake components, wherein said shielding plate is configured to support said brake shoes and a hydraulic cylinder 4 for operating said brake shoes, said abutment and shielding plates are made of different materials, and said shielding plate is made of damped steel that dampens noise and vibrations, as disclosed in page 6 of the translation. Note that the claimed feature “configured to be attached” has been treated broadly as recited by Applicant; wherein first part 6 of Kaneshiro is “configured to be attached” to the axle housing via a number of parts in

between the first part and the axle housing so that the brake assembly would be operating properly. Note also that first part 6 is a retainer plate to retain the second part 5; therefore, the braking forces receiving at the second part 5 inherently would be transmitted through the first part 6 to the axle housing through a number of other elements in between.

Re: claim 20, Kaneshiro et al. show a drum brake assembly, as in present invention, comprising: a shielding plate 2 made of a vibration dampening material that dampens noise and vibrations, said shielding plate being configured to support and shield brake components including drum brake shoes 7a, 7b and a hydraulic cylinder 4 for operating said drum brake shoes, an anchor block 5 for engaging ends of said brake shoes, and an abutment plate 6 having a first part configured to be attached to an axle housing of a vehicle and a second part extending from said first part and engaging said anchor block, as shown in figure 1, to receive braking forces applied thereto by said brake shoes during braking and to transmit said braking forces to said axle housing through said first part, said abutment and shielding plates being made of different materials, as disclosed in page 6. Note that Kaneshiro discloses element 6 to be a retainer plate for anchor block 5. As illustrated in figure 1, retainer plate 6 having a first part configured to be attached to an axle housing of a vehicle via the shielding plate and a second part extending from said first part and engaging said anchor block to retain said anchor block. Since the abutment plate 6 is to retain the block 5; therefore, the braking forces received and transmitted by block 5 inherently would be received and

transmitted by the second part and received and transmitted by the first part of the abutment plate 6 to the axle housing through a number of other elements in between.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 18, 19 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneshiro et al.

Re: claims 7 and 22, Kaneshiro's backing plate and drum brake assembly, as rejected in claims 4 and 20, is silent of the material for the abutment plate. The Examiner takes an Official Notice that steel is an old and well-known material to be used in the construction of brake assemblies due to its durability and strength. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed Kaneshiro's abutment plate using steel since steel is an old and well known material to be used in the construction of brake assemblies due to its durability and strength.

Re: claims 18, 19, 23 and 24, the thicknesses of the steel and the damped steel are considered design choices and would depend on the requirements of each application to dampen the required vibration and noise. It would have been obvious to

one of ordinary skill in the art at the time the invention was made to have constructed Kaneshiro's abutment plate and shielding plate with certain thicknesses in order to satisfy different requirements of each application to dampen the required vibration and noise.

5. Claims 6 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaneshiro et al. in view of Hansen et al.

Kaneshiro's backing plate assembly and shielding plate, as rejected in claims 4 and 20, lack the claimed feature of two layers of steel of approximately equal thickness. Hansen et al. teach the structure of a damped steel wherein the two outer steel sheets are of equal thickness in column 3, lines 60-63. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed Kaneshiro's backing plate assembly and shielding plate with a damped steel such as taught by Hansen et al.; since said damped steel which consists of two outer steel sheets of equal thickness exhibits superior dampening capability over a wide range of temperature as taught by Hansen and would increase the performance and prolong the life of the backing plate assembly and of the shielding plate of Kaneshiro's drum brake assembly.

6. Claims 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz et al. (DE4203173) in view of Kaneshiro et al.

Re: claim 15, Buchholz et al. show a drum brake, as in the present invention, comprising: an abutment plate 4 comprising a sheet of material having a first part surrounding bolt holes 16 configured to attach to an axle housing and a second part

Art Unit: 3683

surrounding the anchor block 8 configured to receive braking forces applied by brake shoes and transmit said braking forces to said axle housing through said first part as shown in the figures, and a shielding plate 5 attached to said abutment plate 4 and configured to support said brake shoes 7, 7, wherein said abutment plate 4 and said shielding plate 5 are constructed to dampen vibrations and noise, as stated in the Abstract. Buchholz is silent of the materials being used for the abutment plate and the shielding plate. Kaneshiro teaches the concept of using a vibration dampening material in the construction of the shielding plate to reduce vibration and noise in a brake system. The Examiner takes an Official Notice that steel is an old and well-known material to be used in the construction of brake assemblies. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the teaching of Kaneshiro by using the vibration dampening material in the construction of the shielding plate of Buchholz and using steel for the construction of the abutment plate of Buchholz in order to improve the vibration and noise dampening capability of the brake assembly as taught by Kaneshiro, at the same time using a well known and readily available material of steel for the abutment plate.

Re: claim 16, Buchholz shows said shielding plate 5 is configured to receive a hydraulic cylinder 9.

Re: claim 17, Kaneshiro teaches said sound dampening material comprises damped steel comprising two sheets of steel, as described in page 6.

Response to Arguments

7. Applicant's arguments filed 12/6/05 have been fully considered but they are not persuasive.

- Applicant argues that the amendments to claims 4 and 20 would overcome the rejection based on Kaneshiro et al. The Examiner disagrees. Kaneshiro's plate 6, as explained above, is used to retain block 5. Inherently, any forces that are received and transmitted by block 5 would be received and transmitted by plate 6. The rejection has been modified to meet the amended claims.
- Applicant further argues that the combination of Buchholz in view of Kaneshiro is not obvious because there is no suggestion to combine from the references. Both Buchholz and Kaneshiro references are teachings of reducing noises in drum brake assemblies. Each teaching comprises a first element to receive the brake forces and a second element to dampen the vibration due to the brake forces to reduce braking noises. Buchholz uses a thin metal plate for the second element. Kaneshiro uses a damping steel plate for the second element since damping steel is a well known and readily available material for use in brake assemblies to dampen vibration and to reduce noises. The Examiner maintains that it would have been obvious to one of ordinary skill in the art of brakes at the time the invention was made to have employed Kaneshiro's teaching of using damping steel in the brake assembly of Buchholz to further improve the noise reduction as taught by Kaneshiro. The rejection is still deemed proper and is repeated above.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is (571) 272-7121. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571) 272-6786. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3683

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lan Nguyen
Primary Examiner
Art Unit 3683

 2/1/06